

PER 61035/65

oversize

Declass Review by
NIMA/DOD

TOP SECRET



I
MAGERY
A
NALYSIS
D
IVISION

PIR

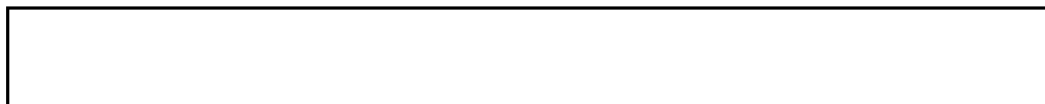
PHOTOGRAPHIC INTELLIGENCE REPORT

VITAL RECORDS COPY

REGIONAL LIQUID STORAGE

INSTALLATIONS IN COMMUNIST

CHINA



25X

CIA/PIR61037

25X

DATE October 1965

COPY

PAGES 10

GROUP 1
Excluded from automatic
downgrading and declassification

TOP SECRET

25X1

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

~~APPROPRIATION DATE(S)~~ : STOCK MINIMUM
Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

[illegible]

25X1

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

December 1965

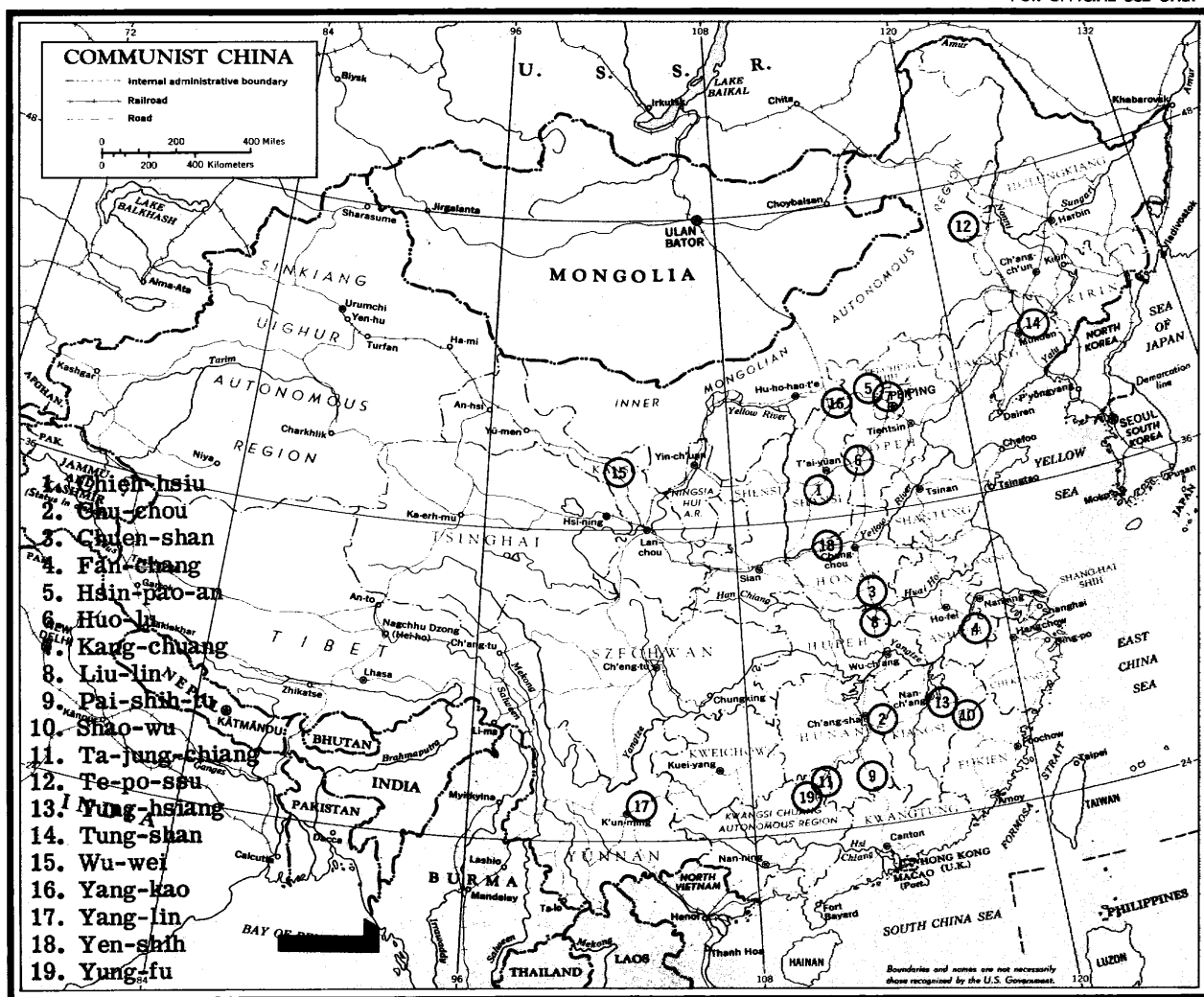
CIA IMAGERY ANALYSIS DIVISION

ERRATUM FOR CIA/PIR-61037, [REDACTED]

25X

The place name Chuen-Shan is incorrect and should be corrected to read Chueh-Shan. The name appears on pages 2, 3 and 8 and on Figures 1, 8 and 9 of CIA/PIR-61037.

FOR OFFICIAL USE ONLY



REGIONAL LIQUID STORAGE INSTALLATIONS

~~TOP SECRET~~

25X

CIA IMAGERY ANALYSIS DIVISION

CIA/PIR-61037

25X

REGIONAL LIQUID STORAGE INSTALLATIONS
IN COMMUNIST CHINA

Nineteen unusual rail-served liquid storage installations, including six that are currently under construction, have been located in Communist China (Figure 1). These installations have similar components and are all strategically located in relatively isolated areas at the end of 2-3 mile long rail spurs which were constructed specifically for and serve only the installation.

The installations appear to be military in nature and may be regional collection and distribution centers for a type of liquid storage. Some of these sites are less than ten miles from large military barracks and training areas. A typical completed installation (Figure 2) contains 20 dome-covered, earth-mounded, semi-buried, tank-like structures, approximately 75 feet in diameter and 40 feet deep; a three-track wide, revetted, rail transloading facility; at least one large earth-covered bunker, approximately 200 feet by 100 feet; two or three warehouse-type buildings, each approximately 200 feet by 100 feet; and a support area of 35-50 buildings, including barracks. The entire area is secured with single or double fencing.

These installations resemble POL storage areas, but they have several features that are not typical of known POL storage areas elsewhere in China.

- (a) A hemispherical dome covers each tank-like structure. The sides of the tank are completely covered with earth approximately ten feet thick at the top, sloping to 20-25 feet thick at the bottom, so that each tank-like structure resembles a giant igloo (Figure 3).
- (b) The structures are spaced in an apparently random pattern from 100 to 500 feet apart, possibly to take advantage of ravine spurs and natural terrain features that provide additional security and protection.
- (c) An improved road leads to each individual tank-like structure, which has a cave-like entrance large enough for small vehicles.
- (d) Each structure appears to have seven ventilators; one on the top in the center of the dome, and six spaced around the edges.
- (e) The structures are usually built along the sides of ravines at

~~TOP SECRET~~

25X

TOP SECRET

CIA IMAGERY ANALYSIS DIVISION

[] CIA/PIR-61037

elevations considerably higher than the railhead facility.

(f) Locating these installations in some of these isolated areas required the construction of tunnels and bridges. The construction time of approximately 3-4 years and the engineering and construction costs appear to be abnormally and unnecessarily high for conventional POL storage areas.

The following eleven installations appeared to be operational when they were first photographed during 1959-1962 period. However, new buildings and additional constructional activity has been observed at most of these installations from 1962 to 1965:

Chieh-Hsiu (36-59N 111-55E), 60 nautical miles southwest of Tai-Yuan
Chu-Chou (27-49N 113-13E), 25 nautical miles southeast of Chang-Sha
Chuen-Shan (32-47N 114-01E), 135 nautical miles north of Wu-Han
Hsin-Pao-An (40-27N 115-21E), 50 nautical miles northwest of Pei-Ping
Huo-Lu (38-03N 114-17E), 10 nautical miles west of Shi-Men
Kang-Chuang (40-19N 115-54E), 25 nautical miles northwest of Pei-Ping
Liu-Lin (31-58N 114-06E), 85 nautical miles north of Wu-Han
Tung-Hsiang (28-10N 116-38E), 50 nautical miles southeast of Nan-Chang
Yang-Kao (40-20N 113-41E), 25 nautical miles northeast of Ta-Tung
Yen-Shih (34-44N 112-55E), 25 nautical miles east of Lo-Yang
Yung-Fu (24-49N 110-00E), 45 nautical miles northeast of Liu-Chow

The following two installations were in the early stages of construction when they were first photographed in 1960 and 1961. They appeared to be operational in 1963 and 1964:

Wu-Wei (37-59N 102-30E), 6 nautical miles northwest of Wu-Wei
Yang-Lin (25-14N 103-06E), 25 nautical miles northeast of Kun-Ming

X1 The following six installations began construction during 1962 and 1963 and as of [] were still actively under construction at various stages of completion:

Fan-Chang (31-04N 118-07E), 25 nautical miles southwest of Wu-Hu
Pai-Shih-Tu (25-25N 113-04E), 50 nautical miles northwest of Chu-Chiang
Shao-Wu (27-26N 117-27E), 60 nautical miles northwest of Nan-Ping
Ta-Jung-Chiang (25-35N 110-32E), 20 nautical miles northeast of Kwei-Lin
Te-Po-Ssu (46-27N 121-18E), 75 nautical miles northwest of Tao-An
Tung-Shan (41-58N 124-32E), 50 nautical miles east-northeast of Shen-Yang

TOP SECRET

CIA IMAGERY ANALYSIS DIVISION

CIA/PIR-61037

Photographs and map locations of the known nineteen installations, arranged in alphabetical order, are shown on the following pages. A detailed search of available photography could possibly reveal the locations of several more.

A few of these installations are identified and located for the first time in this report, but most of them have been previously reported as possible underground POL storage, explosive storage, or mining activity. Whatever their function, it seems apparent that they are all similar, represent a major current construction effort, and may have significant military importance.

REFERENCES

25X1

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

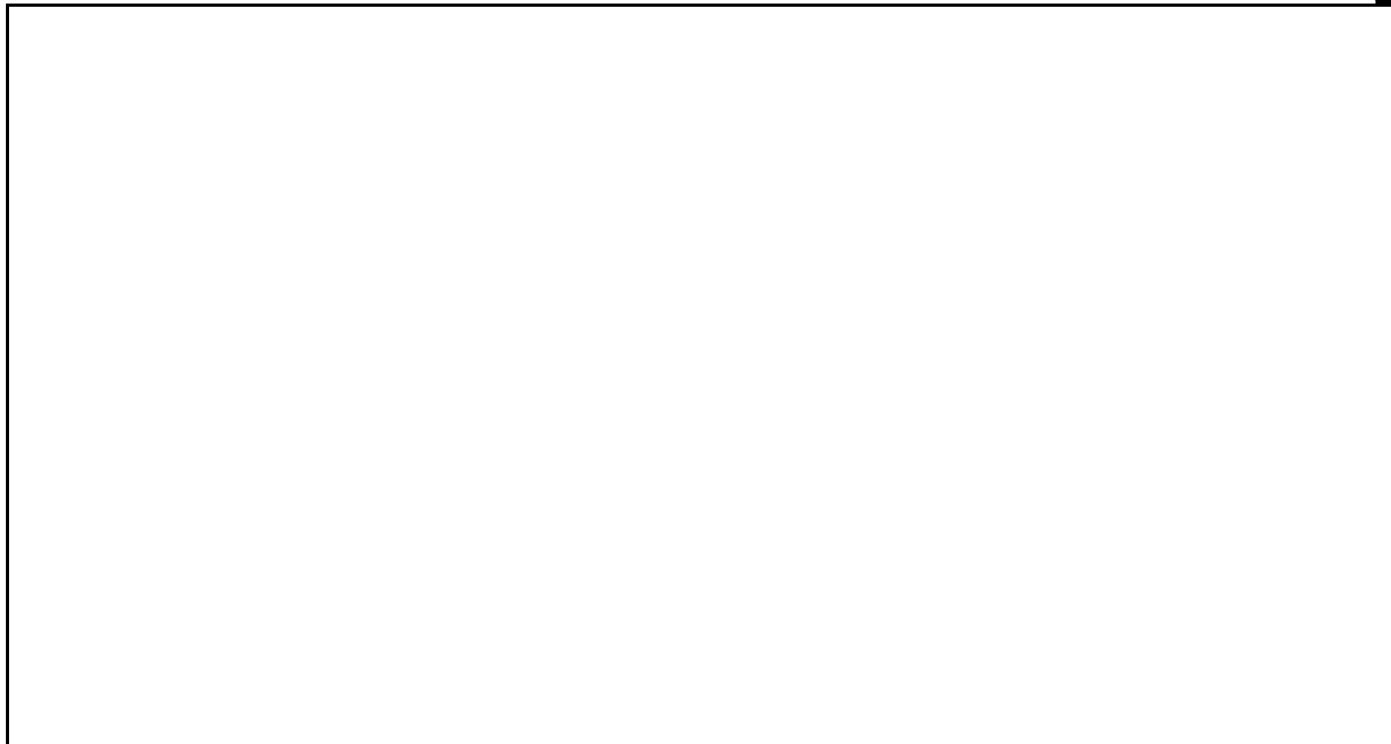
Next 3 Page(s) In Document Exempt

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

TOP SECRET

CIA IMAGERY ANALYSIS DIVISION

CIA/PIR-61037



MAPS and CHARTS

Chieh-Hsiu

ACIC. US Air Target Chart, Series 200, Sheet 0382-18AL, Scale 1:200, 000, 2nd edition, April 1961 (SECRET)

Chu-Chou

ACIC. US Air Target Chart, Series 200, Sheet 0498-1AL, Scale 1:200, 000, 2nd edition, September 1960 (SECRET)

Chuen-Shan

ACIC. US Air Target Chart, Series 200, Sheet 0385-24HL, Scale 1:200, 000, 2nd edition, June 1963 (SECRET)

Fan-Chang

ACIC. US Air Target Chart, Series 200, Sheet 0493-9A, Scale 1:200, 000, 1st edition, March 1959 (SECRET)

TOP SECRET

CIA IMAGERY ANALYSIS DIVISION

CIA/PIR-81037

Pai-Shih-Tu

ACIC. US Air Target Chart, Series 200, Sheet 0498-16HL, Scale 1:200, 000, 2nd edition, March 1964 (SECRET)

Hsin-Pao-An

ACIC. US Air Target Chart, Series 200, Sheet 0289-21AL, Scale 1:200, 000, 4th edition, November 1962 (SECRET)

Huo-Lu

ACIC. US Air Target Chart, Series 200, Sheet 0382-14AL, Scale 1:200, 000, 2nd edition, February 1961 (SECRET)

Kang-Chuang

ACIC. US Air Target Chart, Series 200, Sheet 0289-21AL, Scale 1:200, 000, 4th edition, November 1962 (SECRET)

Liu-Lin

ACIC. US Air Target Chart, Series 100, Sheet 0385-8415-100A (Prov), Scale 1:100,000, 2nd edition (Prov), May 1957 (SECRET)

Shao-Wu

ACIC. US Air Target Chart, Series 200, Sheet 0498-4AL, Scale 1:200, 000, 1st edition, August 1960 (SECRET)

Ta-Jung-Chiang

ACIC. US Air Target Chart, Series 200, Sheet 0497-18 A, Scale 1:200, 000, 1st edition, February 1959 (SECRET)

Te-Po-Ssu

ACIC. US Air Target Chart, Series 200, Sheet 0284-9AL, Scale 1:200, 000, 1st edition, January 1960 (CONFIDENTIAL)

Tung-Hsiang

ACIC. US Air Target Chart, Series 200, Sheet 0493-23AL, Scale 1:200, 000, 2nd edition, November 1960 (SECRET)

CIA IMAGERY ANALYSIS DIVISION

CIA/PIR-61037

Tung-Shan

ACIC. US Air Target Chart, Series 200, Sheet 0290-11HL, Scale 1:200, 000, 3rd edition, December 1961 (SECRET)

Wu-Wei

ACIC. US Air Target Chart, Series 200, Sheet 0383-11HL, Scale 1:200, 000, 2nd edition, June 1964 (SECRET)

Yang-Kao

ACIC. US Air Target Chart, Series 200, Sheet 0288-25AL, Scale 1:200, 000, 1st edition, March 1960 (SECRET)

Yang-Lin

ACIC. US Air Target Chart, Series 200, Sheet 0496-17A, Scale 1:200, 000, 1st edition, September 1959 (SECRET)

Yen-Shih

ACIC. US Air Target Chart, Series 200, Sheet 0385-8AL, Scale 1:200, 000, 1st edition, April 1960 (SECRET)

Yung-Fu

ACIC. US Air Target Chart, Series 200, Sheet 0497-18A, Scale 1:200, 000, 1st edition, February 1959 (SECRET)

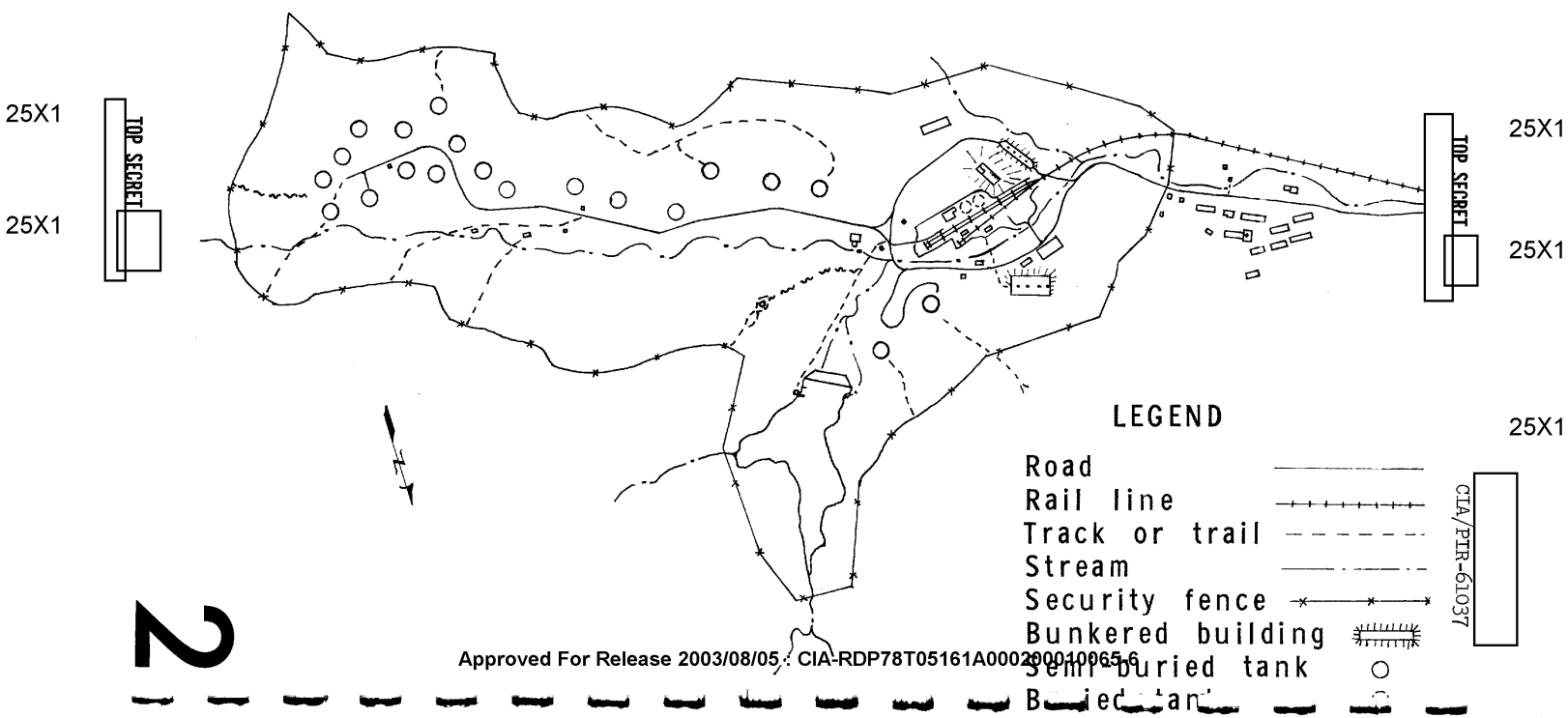
REQUIREMENT

DDP/277/65

CIA/IAD PROJECT

30182-6 (Partial)

TUNG-HSIANG, CHINA
28 10 N - 116 38 E



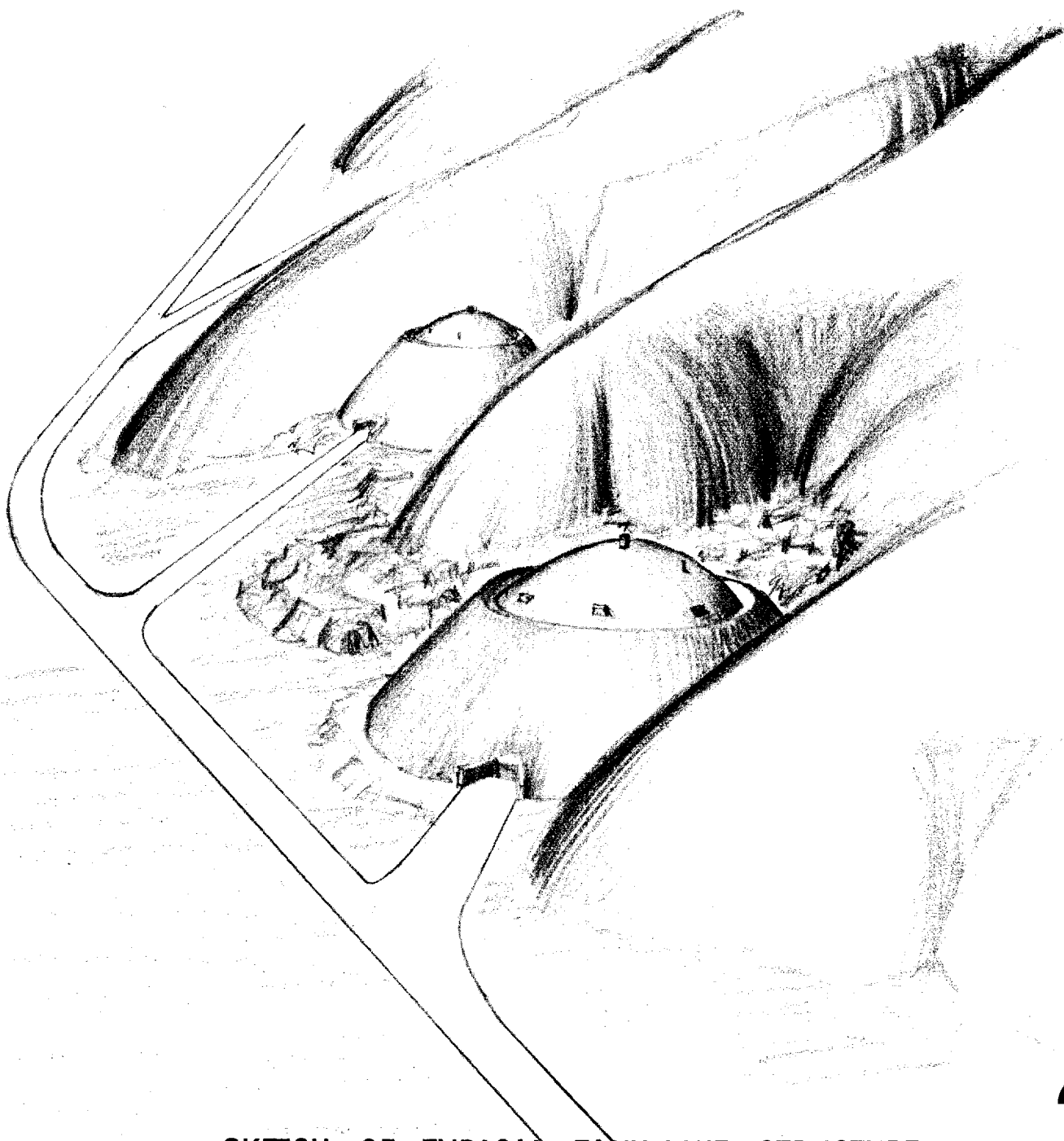
25X1

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

CIA/PTR-61037

25X1

25X1



SKETCH OF TYPICAL TANK-LIKE STRUCTURE

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

TOP SECRET

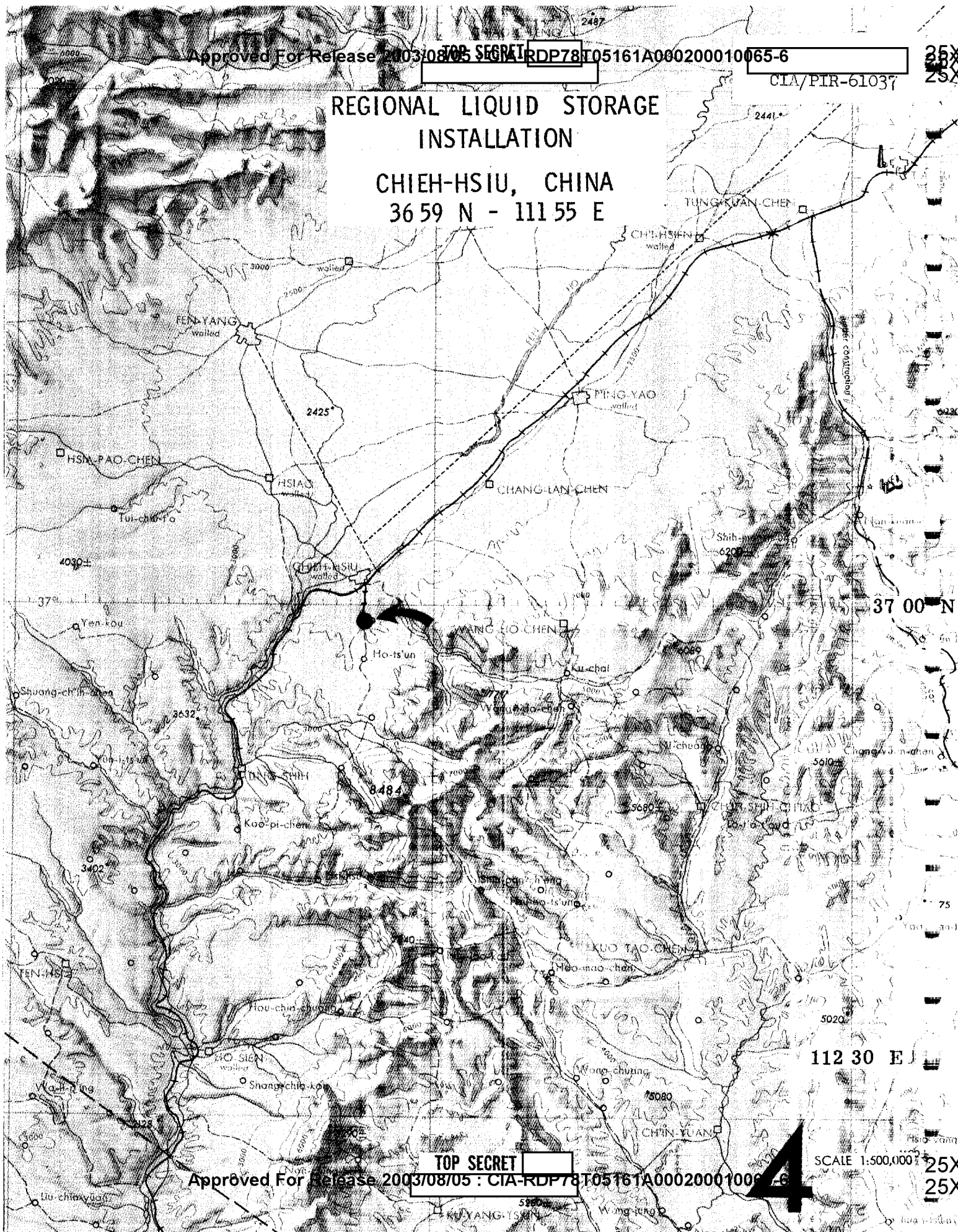
3

25X1

25X1

25X1

CHIEH-HSIU, CHINA
36 59 N - 111 55 E



37 00 N

112 30 E

TOP SECRET

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010001-6

SCALE 1:500,000

25X1
25X1

Approved For Release 2003/08/05 : CIA-RDP83T05161A000200010065-6

REGIONAL

CHIEF NSIU

36 59 N

25X1

25X1

25X1

25X1

FMI-B

25X1

Approved For Release 2003/08/05 : CIA-RDP83T05161A000200010065-6

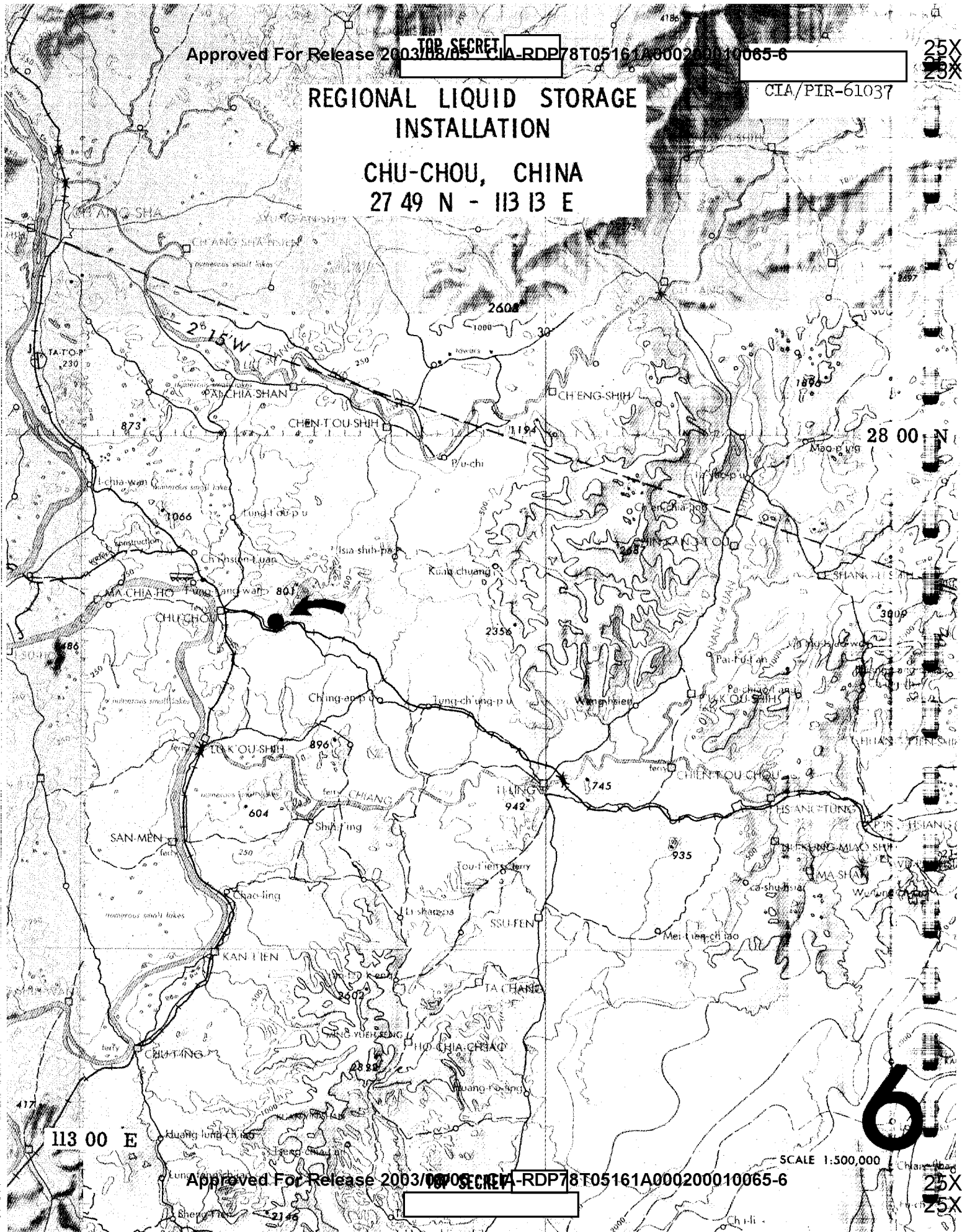
Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

TOP SECRET

CIA/PIR-61037

REGIONAL LIQUID STORAGE INSTALLATION

CHU-CHOU, CHINA
27 49 N - 113 13 E



SCALE 1:500,000

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

TOP SECRET

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

REGIONAL LIQUID STORAGE
INSTALLATION

CHU-CHOU, CHINA
27 49 N - 113 13 E

11 CEMENT BURIED TANKS

SUPPORT AREA

RAILHEAD

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

25X1

05X1

40A1

CHUEN-SHAN, CHINA
32 47 N - 114 01 E

32 47 N - 114 01 E

JD

KD

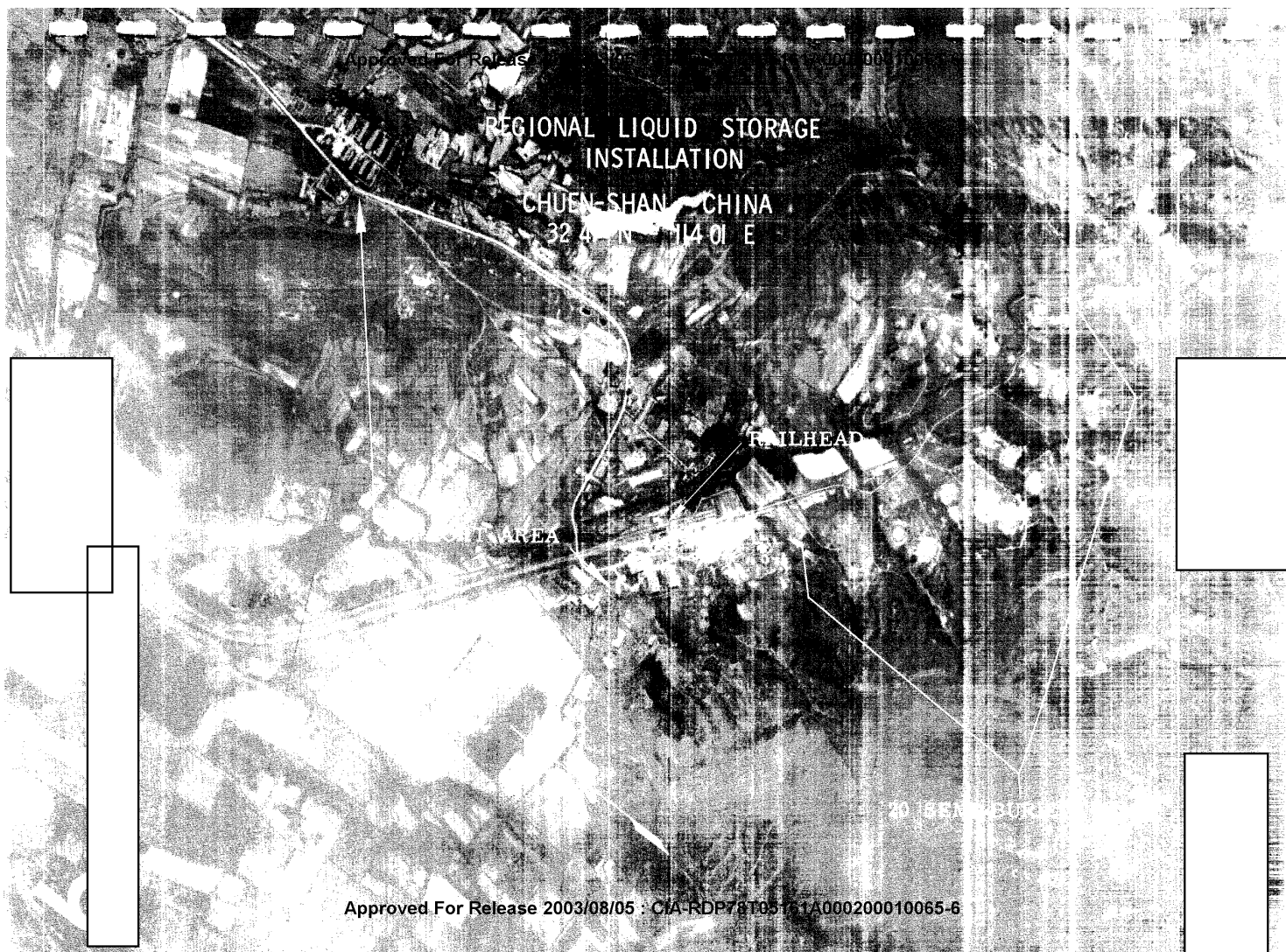
A stylized map of the Jinchuan region. The map shows the Jinchuan River flowing from the top left towards the bottom right. A small circle marks the location of Ku-hsien. The river is labeled 'Jinchuan' in a stylized font. The map is divided into two main sections by a vertical line, with 'Ku-hsien' on the left and 'Jinchuan' on the right. The word 'Ho' is also visible on the right side.

A map of the Kien-cheng area. The Kien-cheng River is shown flowing from the top left towards the bottom right. Several locations are marked with dots and labeled: 'Chang-i-tien' at the top right, 'Hsai-ho-chen' in the center, 'San-kuan-miao' at the bottom left, and 'Hsai' near the bottom right. The map also shows some roads and geographical features like hills or mountains indicated by hachure marks.

8

25X1

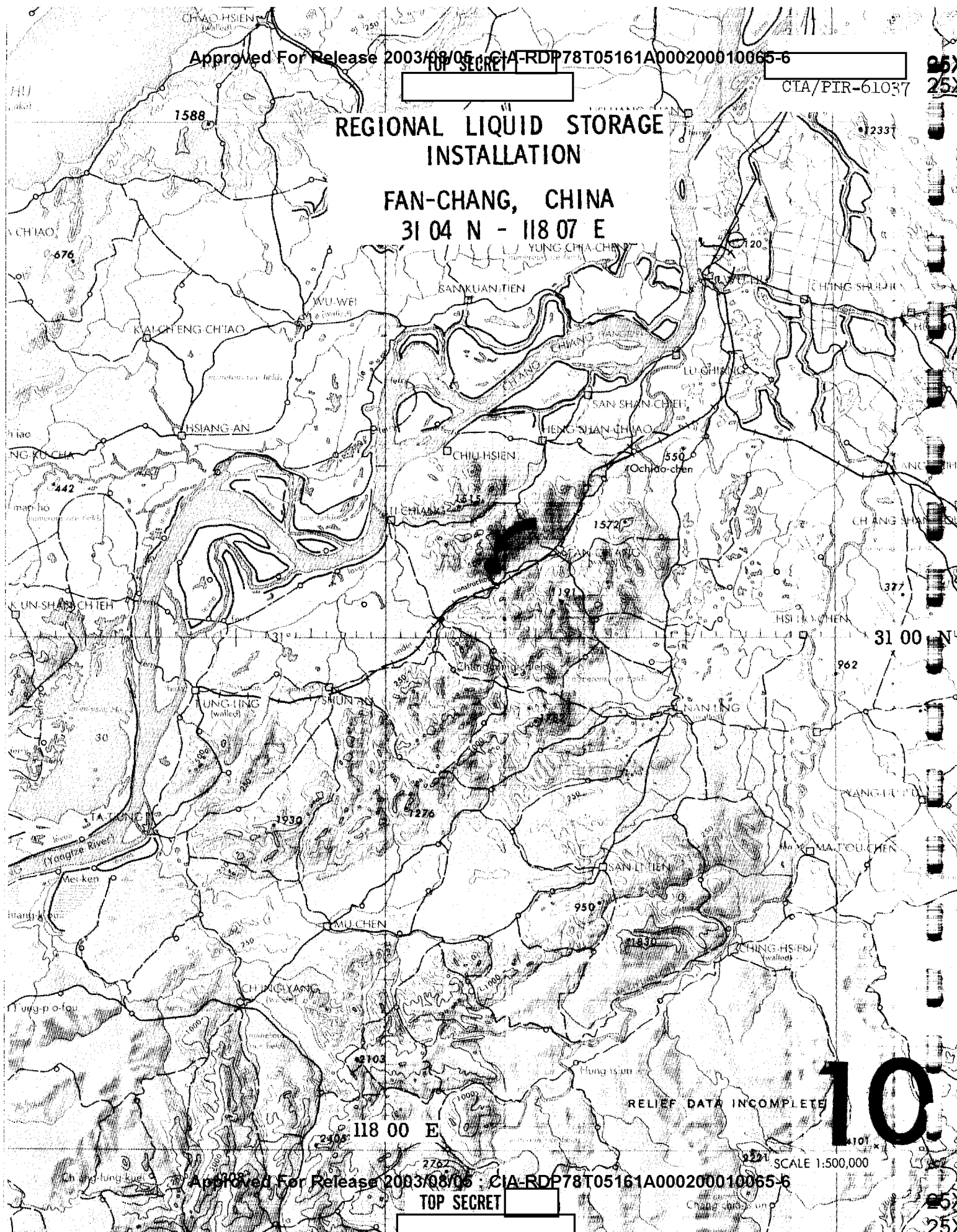
SCALE 1:500 000



25X1
25X1

FAN-CHANG, CHINA
31 04 N - 118 07 E

31 04 N - 118 07 E



RELIEF DATA INCOMPLETE

SCALE 1:500,000

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

TOP SECRET

25X1

REF ID: A66200010065-8

REGIONAL LIQUID STORAGE
INSTALLATION

FAN-CHANG, CHINA
31 04 N - 118 07 E

TANK AREA U/C

RAILHEAD

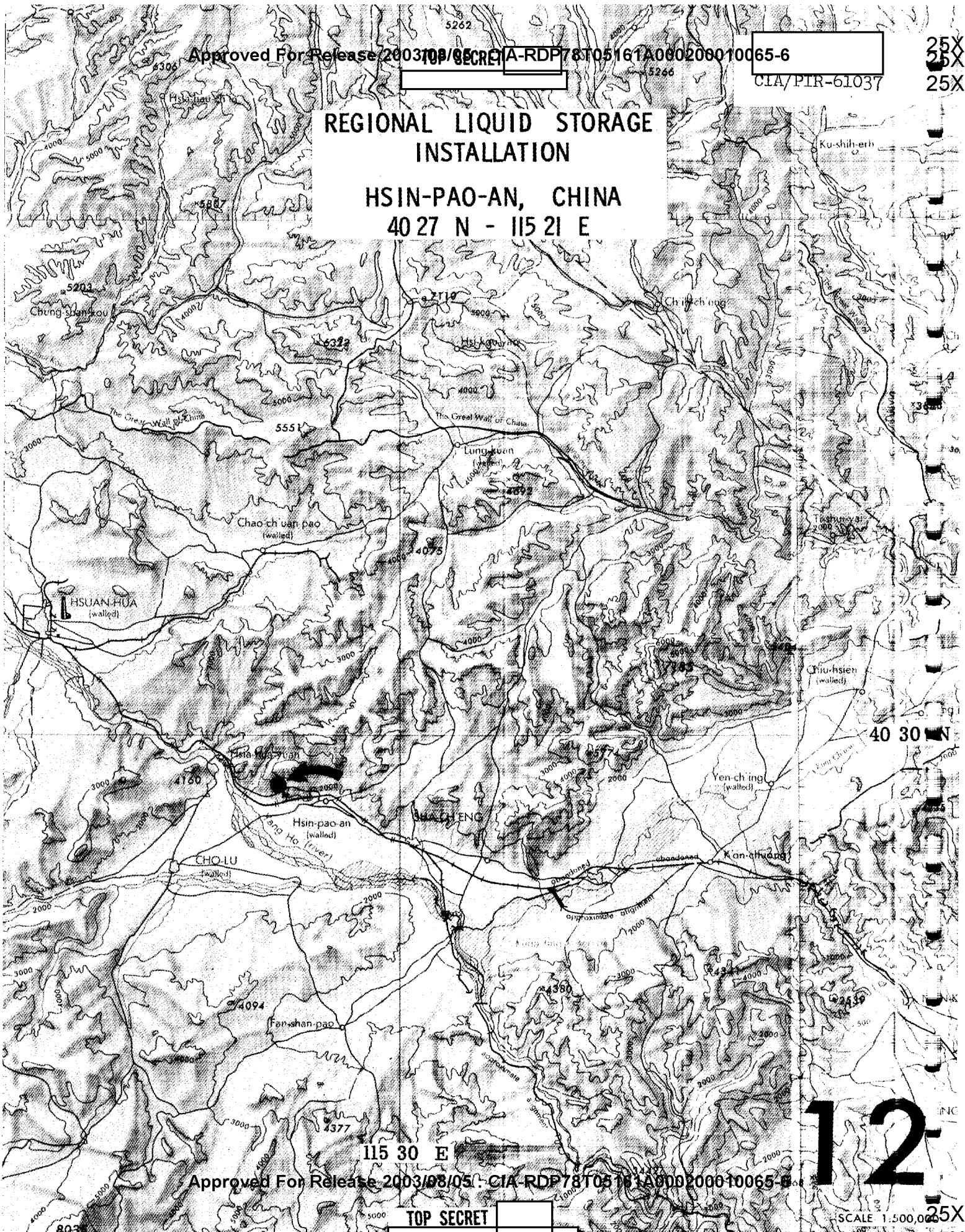
SUPPORT AREA

For Release 2001/06/06

REF ID: A66200010065-8

REGIONAL LIQUID STORAGE INSTALLATION

HSIN-PAO-AN, CHINA
40 27 N - 115 21 E



40 30 N

115 30 E

Approved For Release 2003/08/05 : CIA-RDP78T0001A000200010065-6

0161A000200010065-6

REGIONAL LIQUID SUPPORT INSTALLATION

PLAN IN C
PLAN IN A

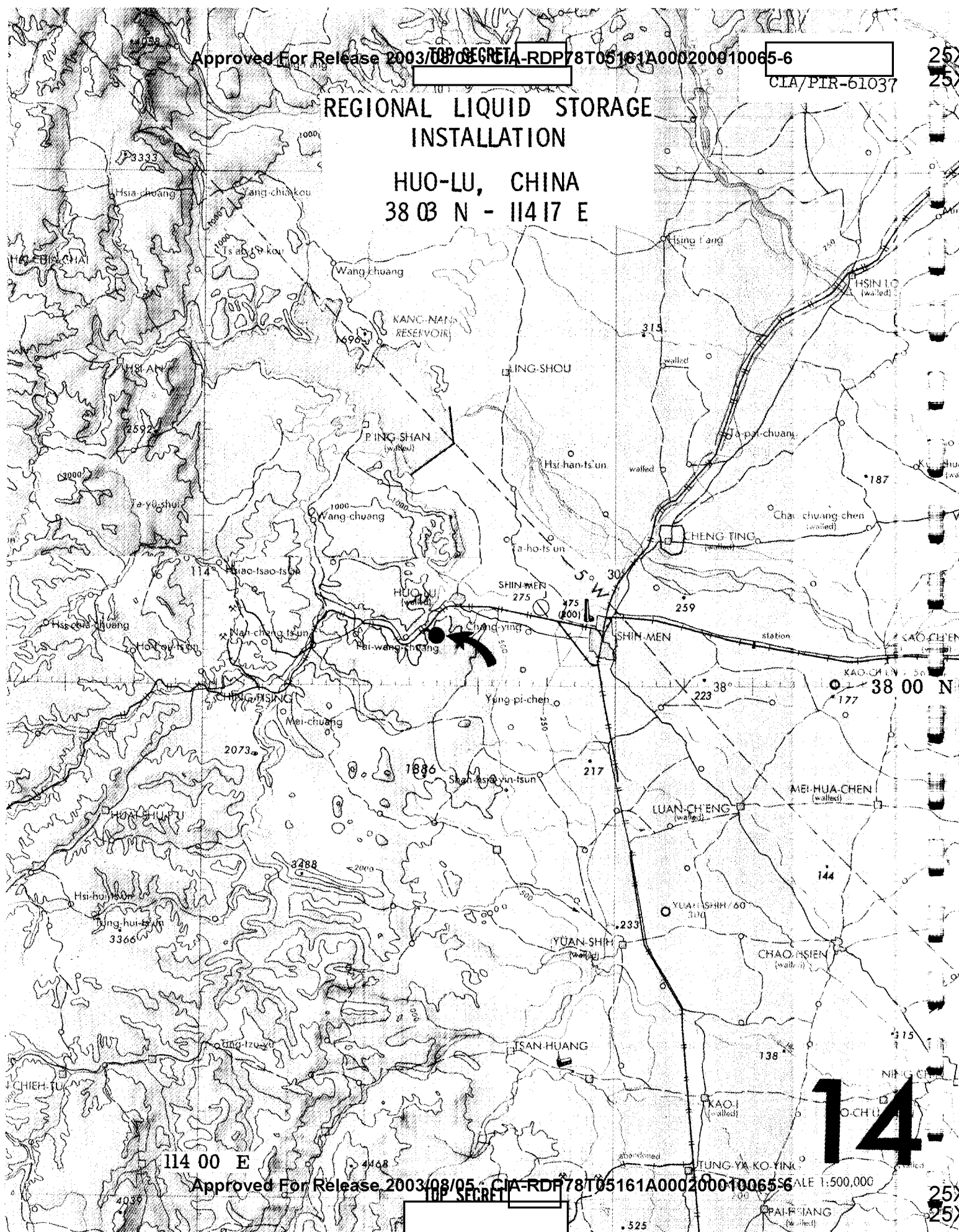
SUPPORT AREA

RAILHEAD

20 SEMI-BURIED TANKS

25X1
25X1

HUO-LU, CHINA
38 03 N - 114 17 E



25X1
25X1

Approved For Release 2003/08/05 : CIA-RDP78T05461A0002000810005-6

REGIONAL LIQUID STORAGE
INSTALLATION

HUO-LU, CHINA

38 03 N - 114 17 E

25X1

25X1

25X1

25X1

SUPPORT AREA

RAILHEAD

10 SEMI-TRAILER

25X1

15

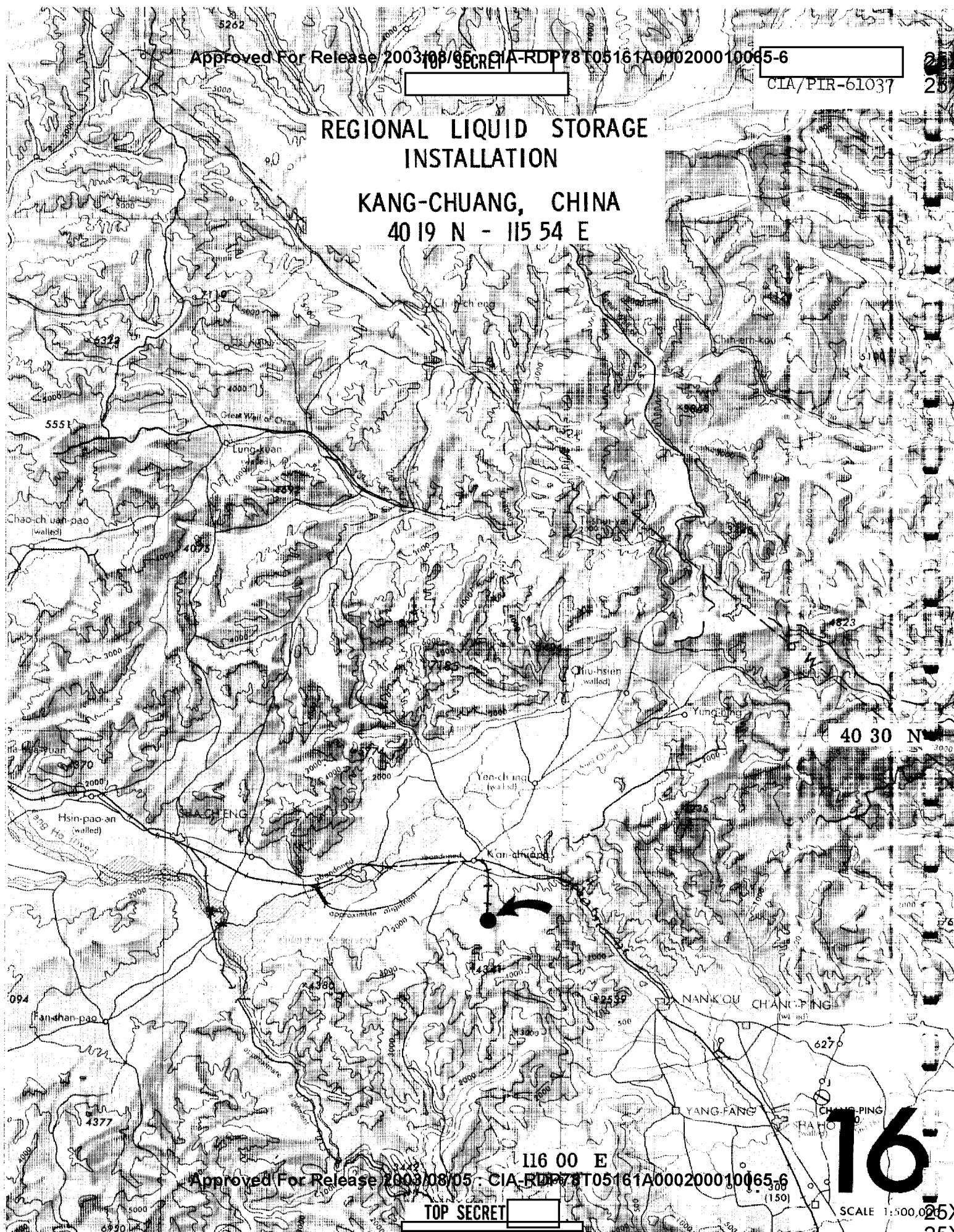
TOP SECRET

CIA/PIR-61037

25X1
25X1

REGIONAL LIQUID STORAGE INSTALLATION

KANG-CHUANG, CHINA
40 19 N - 115 54 E



40 30 N

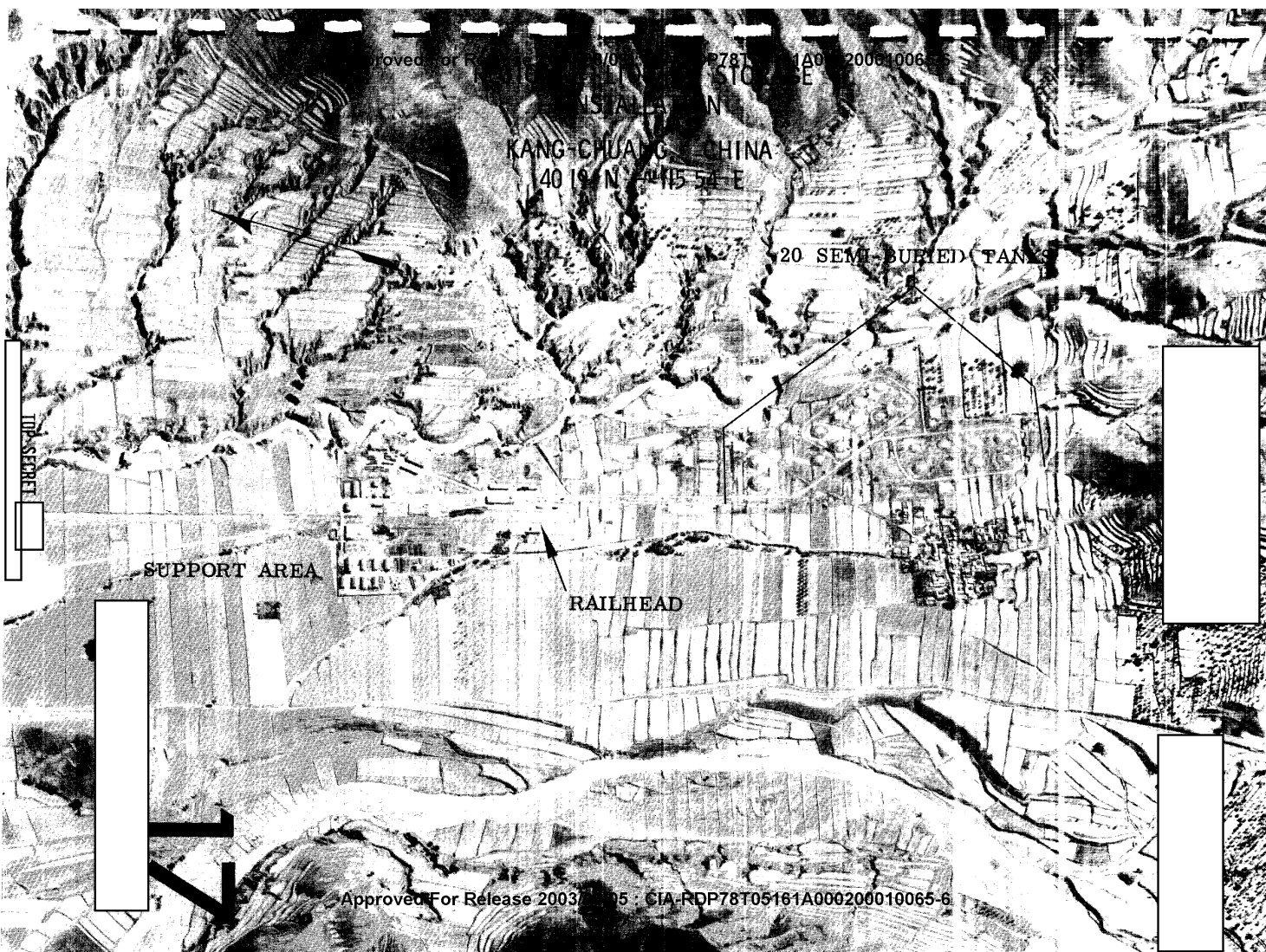
116 00 E

TOP SECRET

SCALE 1:500,000

16

25X1
25X1



Approved For Release 2003/05 : CIA-RDP78T05161A000200010065-6

KANG-CHUANG CHINA
40 19' N 115 51' E

20 SEMI-BURIED TANKS

SUPPORT AREA

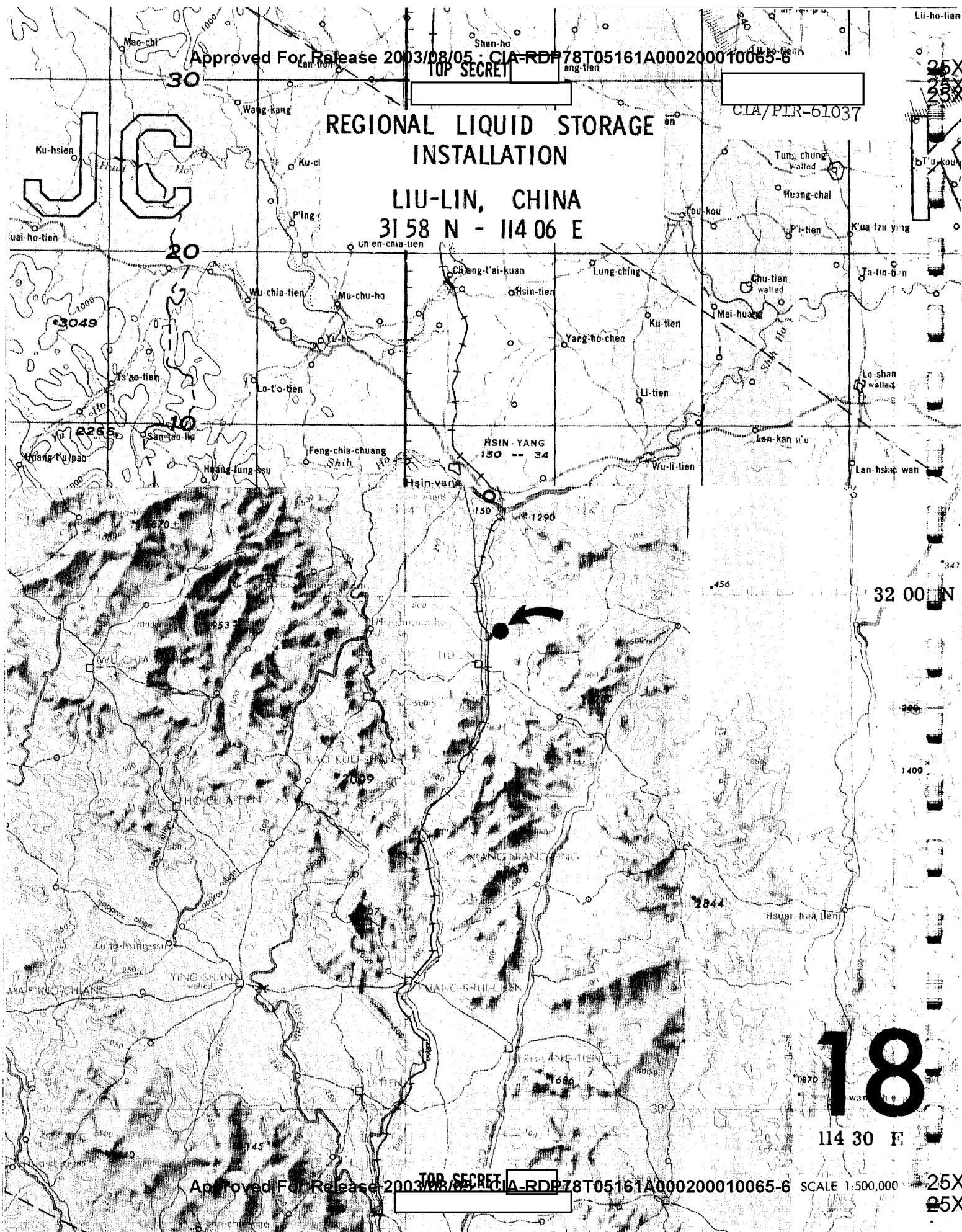
RAILHEAD

TOP SECRET

CIA/PIR-61037

REGIONAL LIQUID STORAGE INSTALLATION

LIU-LIN, CHINA
31 58 N - 114 06 E



32 00 N

18

114 30 E

TOP SECRET

SCALE 1:500,000

25X1
25X1

REGIONAL LIQUID STORAGE
INSTALLATION

LIU-LIN, CHINA
31 58 N - 114 06 E

20 SEMI-BURIED TANKS

RAILROAD

SUPPORT AREA

TOP SECRET
19

TOP SECRET

25X1

25X1

25X1

25X1

25X1

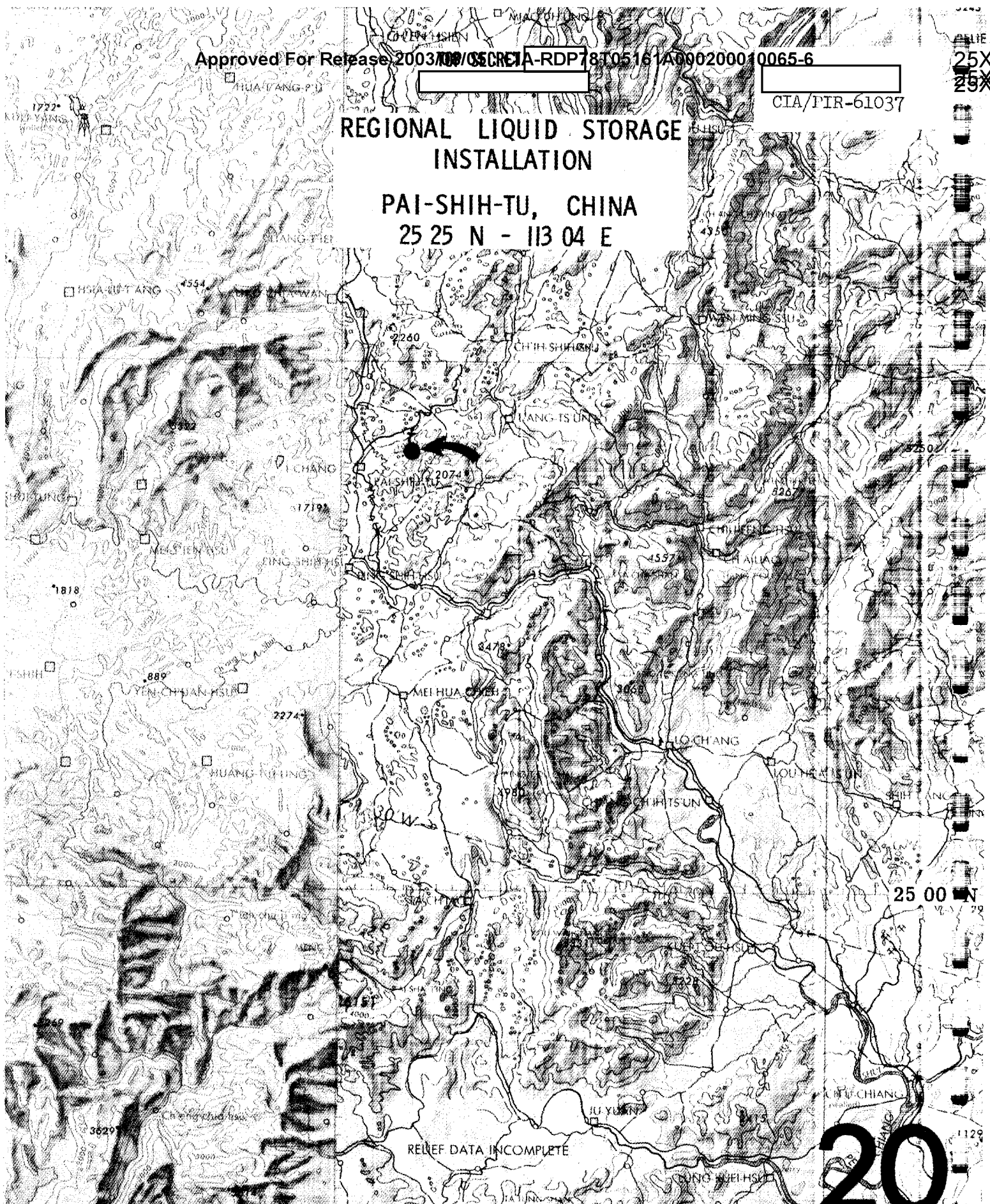
25X1

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

CIA/PIR-61037

REGIONAL LIQUID STORAGE INSTALLATION

PAI-SHIH-TU, CHINA
25 25 N - 113 04 E



RELIEF DATA INCOMPLETE

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

TOP SECRET

113 30 E

SCALE 1:500,000

25X1

25X1

Release 2003/08/05 : CIA

REGIONAL LIQUID STORAGE
INSTALLATION

PAI-SHIH-TU, CHINA
25 25 N - 113 04 E

SUPPORT AREA

RAILHEAD

TANK AREA U/C

21

25X1

25X1

25X1

25X1

25X1

25X1

RELIEF DATA INCOMPLETE

Approved For Release 2003/08/05 : CIA-RDP78T00656-6

TOP SECRET

CIA/PIR-61037

REGIONAL LIQUID STORAGE INSTALLATION

SHAO-WU, CHINA
27 26 N - 117 27 E

27 30 N

RELIEF DATA INCOMPLETE

117 30 E

22

Approved For Release 2003/08/05 : CIA-RDP78T00656-6

TOP SECRET

SCALE 1:500,000

Wang-fa

Approved for Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

REGIONAL LIQUID STORAGE
INSTALLATION

SHAO-WU, CHINA
27 26 N - 117 27 E

RAILHEAD

SUPPORT AREA

TANK AREA U/C

TOP SECRET

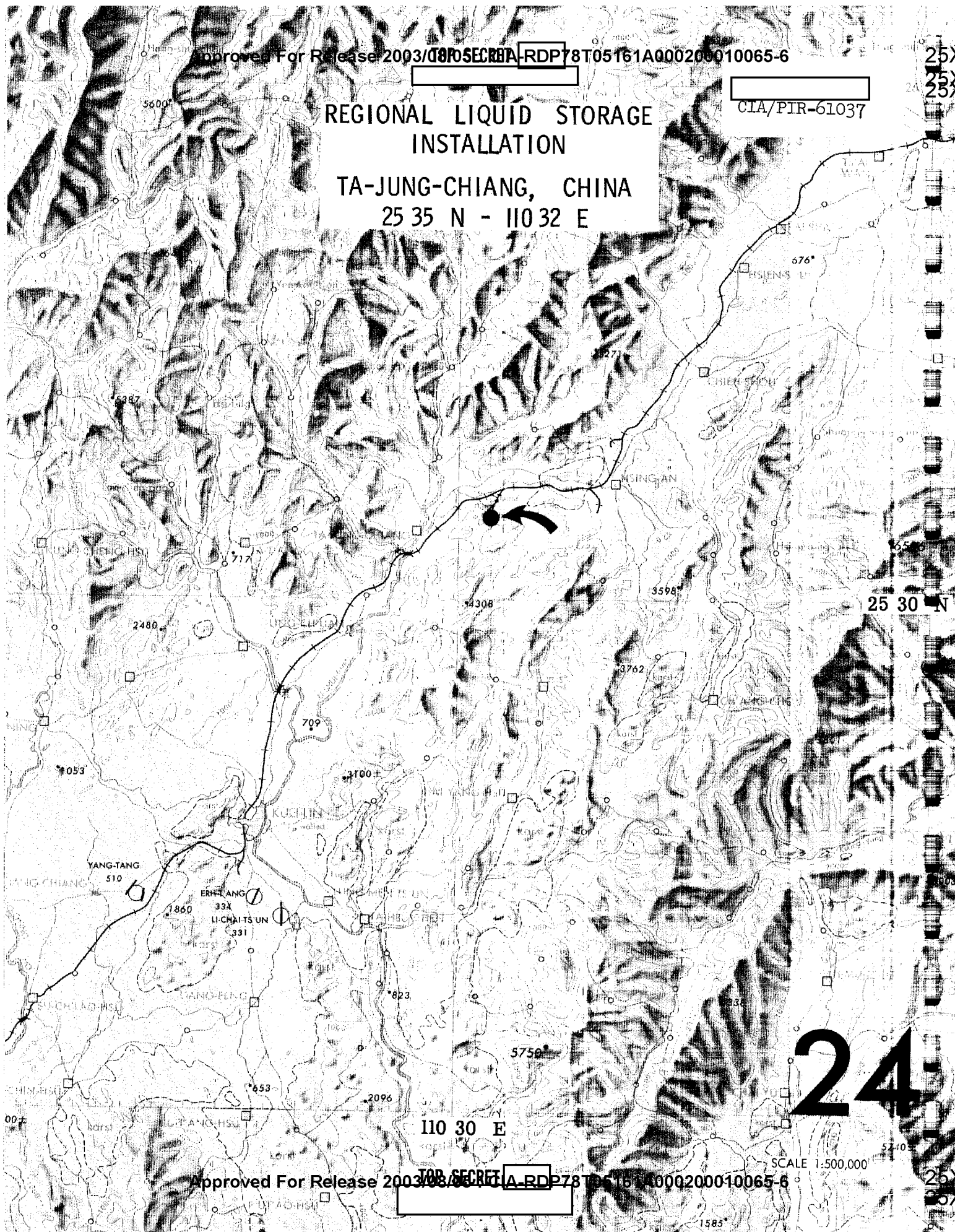
23

25X1

REGIONAL LIQUID STORAGE
INSTALLATION

CIA/PIR-61037

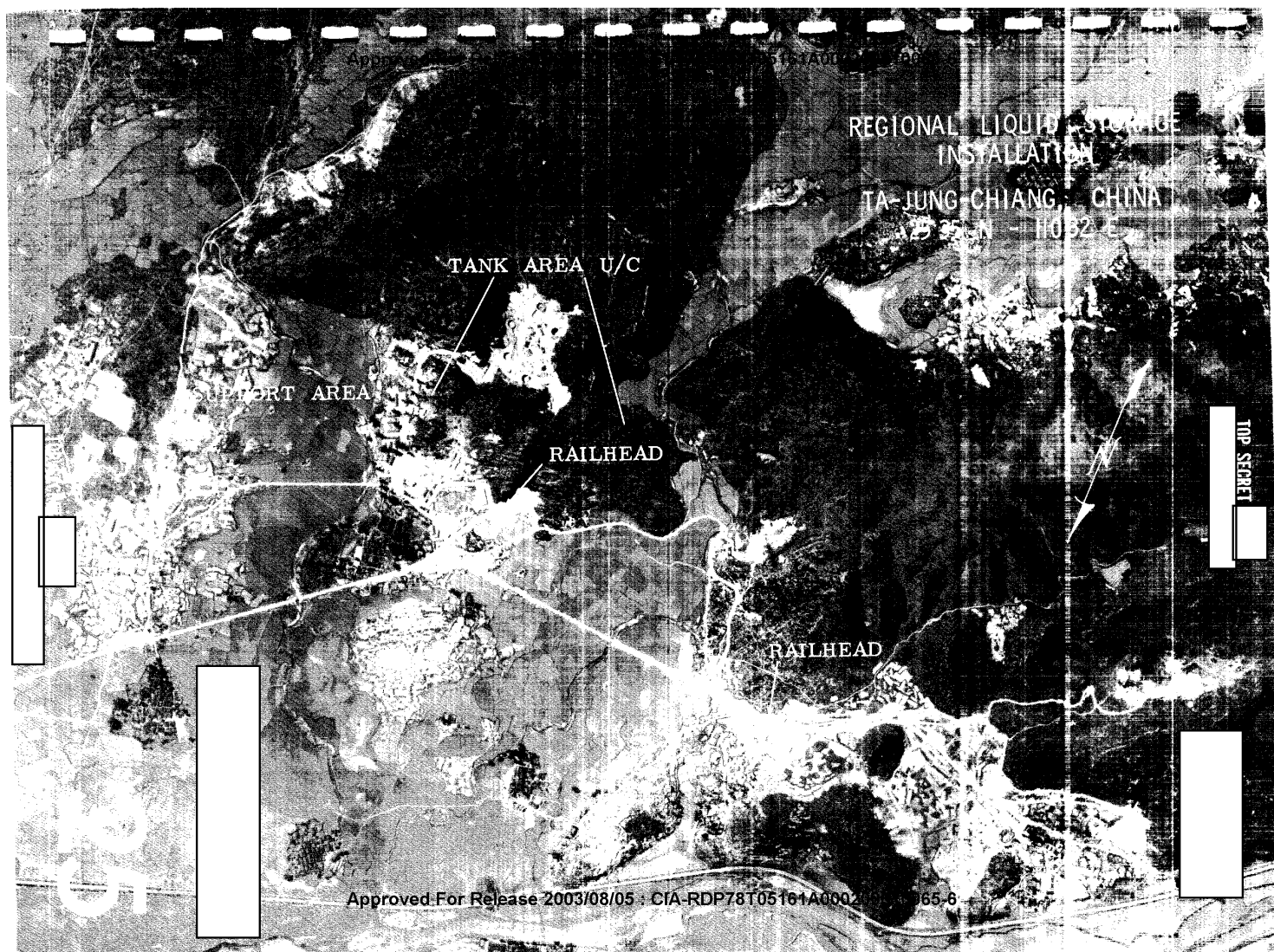
TA-JUNG-CHIANG, CHINA
25 35 N - 110 32 E



25 30 N

110 30 E

SCALE 1:500,000



REGIONAL LIQUID STORAGE
INSTALLATION

TA-JUNG CHIANG, CHINA
42° 35' N - 110° 32' E

TANK AREA U/C

RAILHEAD

SUPPORT AREA

RAILHEAD

TOP SECRET

25X1
~~25X1~~
25X1

REGIONAL LIQUID STORAGE INSTALLATION

TE-PO-SSU, CHINA
46 27 N - 121 18 E

46 30 N

121 30 F

Approved For Release 2003/08/05 : CIA-RDP78P05161A000200010065-6

TOP SECRET

SCALE 1:500,000

26

Approved For Release 2003/03/05 : CIA-RDP78T05161A000200010065-8

REGIONAL LICENSING
INSTALLATION

TE-P0-SSU, C
46 27 N - 121 1

RAILHEAD

SUPPORT AREA

20 32 IN. BURIED TANKS

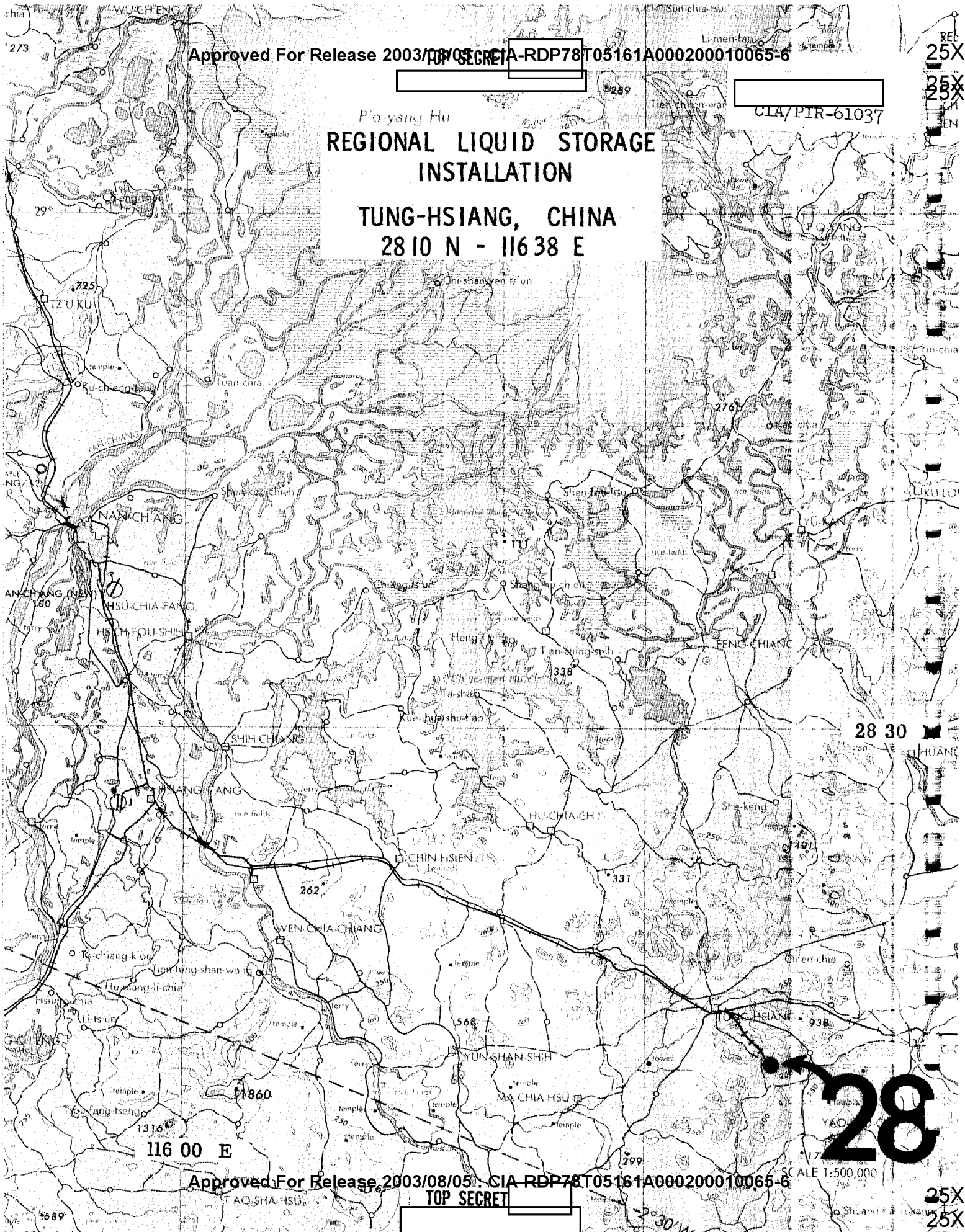
Approved For Release 2003/03/05 : CIA-RDP78T05161A000200010065-8

TOP SECRET

CIA/PIR-61037

P'o-yang Hu
REGIONAL LIQUID STORAGE
INSTALLATION

TUNG-HSIANG, CHINA
28 10 N - 116 38 E



28 30

116 00 E

TOP SECRET

SCALE 1:500,000

25X1
25X1

REGIONAL LIQUID STORAGE
INSTALLATION

TUNG-HSIANG, CHINA
28 10 N - 116 38 E

RAILHEAD

SUPPORT AREA

20 SEMI-BURIED TANKS

TOP SECRET

29

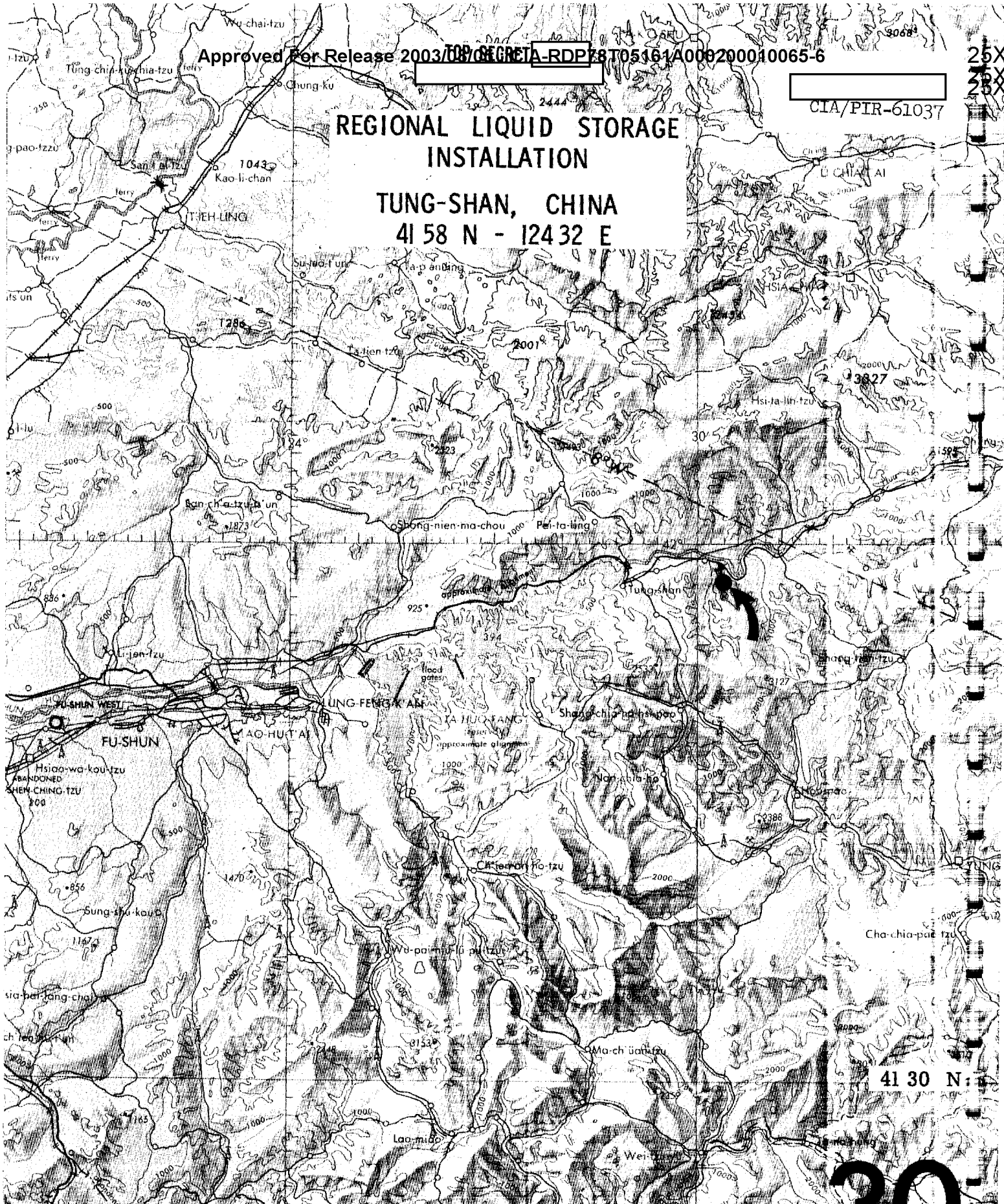
0065-6

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

CIA/PIR-61037

REGIONAL LIQUID STORAGE INSTALLATION

TUNG-SHAN, CHINA
41 58 N - 124 32 E



41 30 N

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

TOP SECRET

30

SCALE 1:500,000

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-8

REGIONAL LIQUID STORAGE
INSTALLATION

TUNG-SHAN, CHINA
41 58 N - 124 32 E

RAILHEAD

SUPPORT AREA

20 SEMI-BURIED TANKS

31

78T05161A000200010065-8

25X5

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

NATIONAL LIQUID STORAGE
INSTALLATION

WU-WEI CHINA
37 59 N 102 30 E

BAIHE

SHUO

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

TOP SECRET

Ch'ia-chia-tsun

25X1

25X1

REGIONAL LIQUID STORAGE INSTALLATION

CIA/PIR-61037

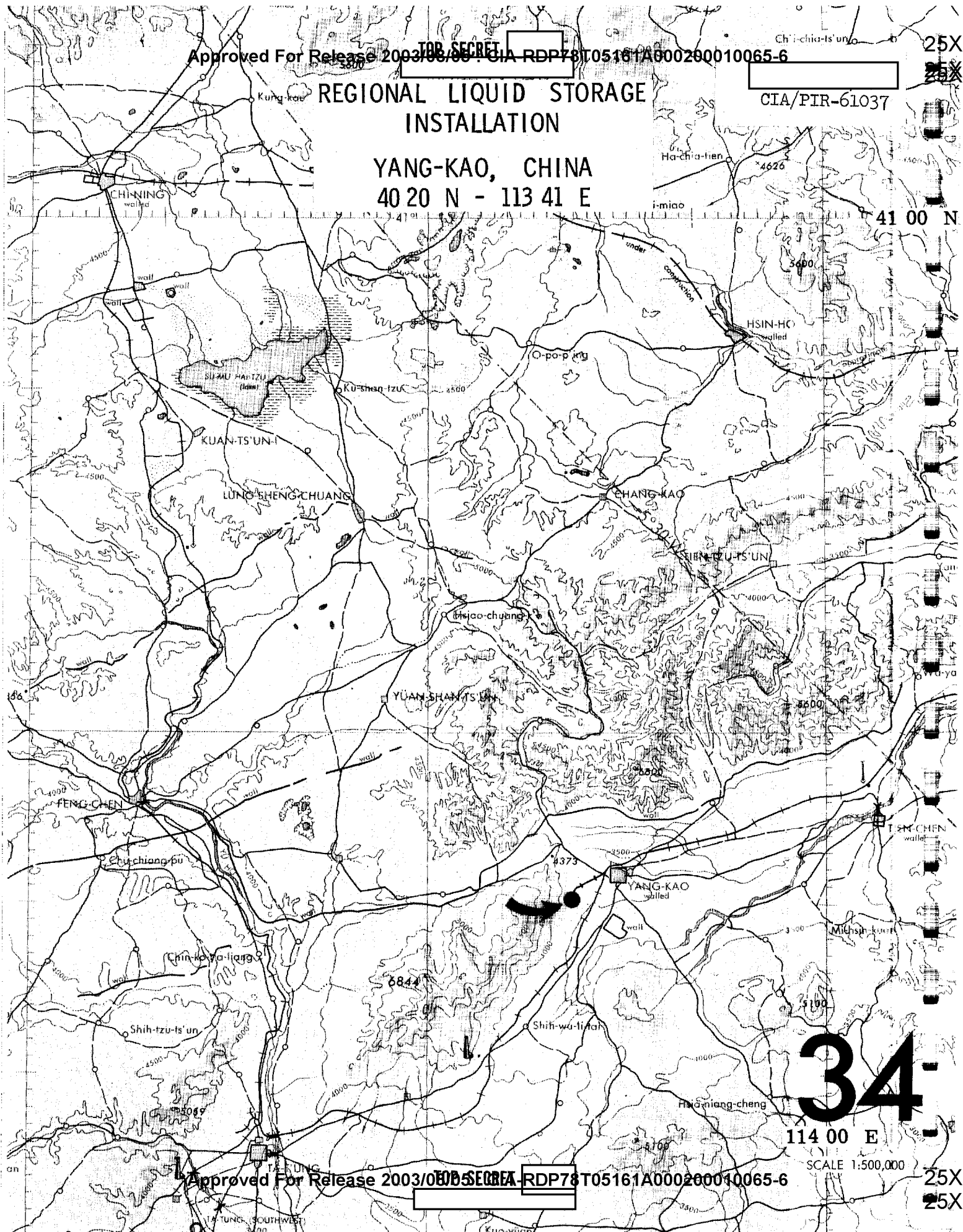
YANG-KAO, CHINA
40 20 N - 113 41 E

Ha-chia-tien

4626

i-miao

41 00 N



34

114 00 E

SCALE 1:500,000

TOP SECRET

25X1

25X1

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

REGIONAL LIQUID STORAGE
INSTALLATION

YANG-KAO, CHINA
40 20 N - 113 41 E

SUPPORT AREA

RAILHEAD

20 SEMI-HUB'D

TOP SECRET

TOP SECRET

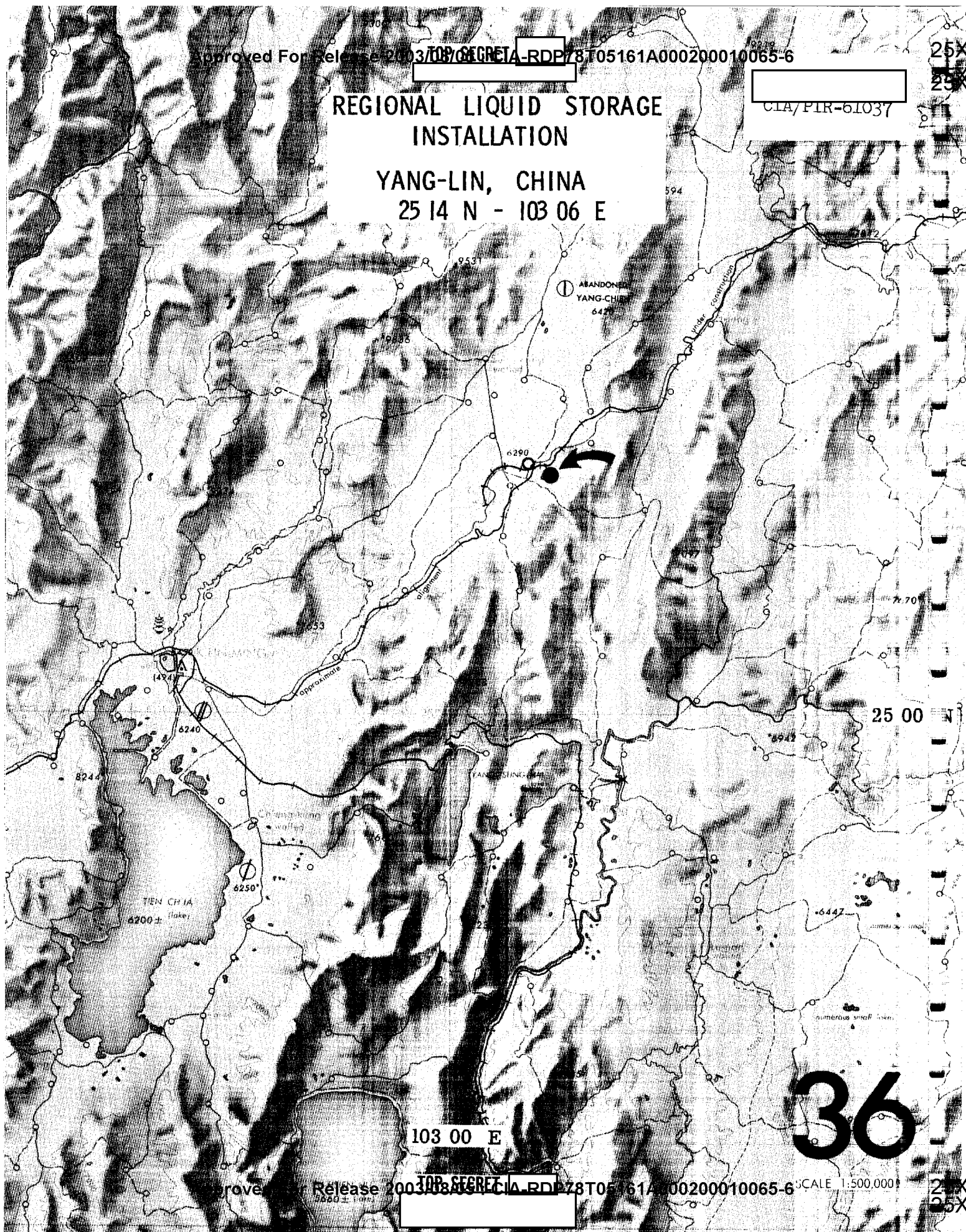
35

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

REGIONAL LIQUID STORAGE INSTALLATION

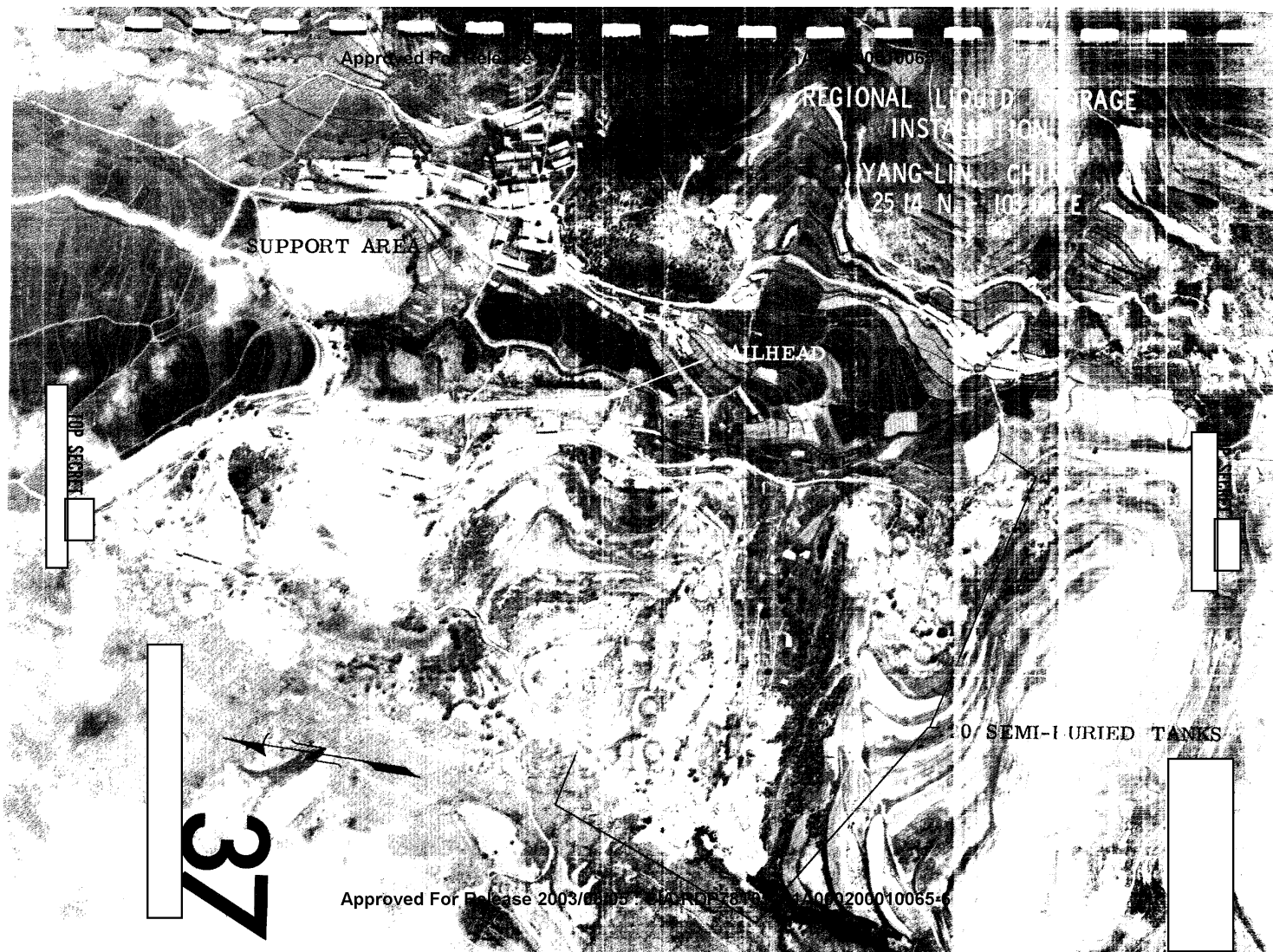
CIA/PIR-61037

YANG-LIN, CHINA
25 14 N - 103 06 E



25 00 N

103 00 E

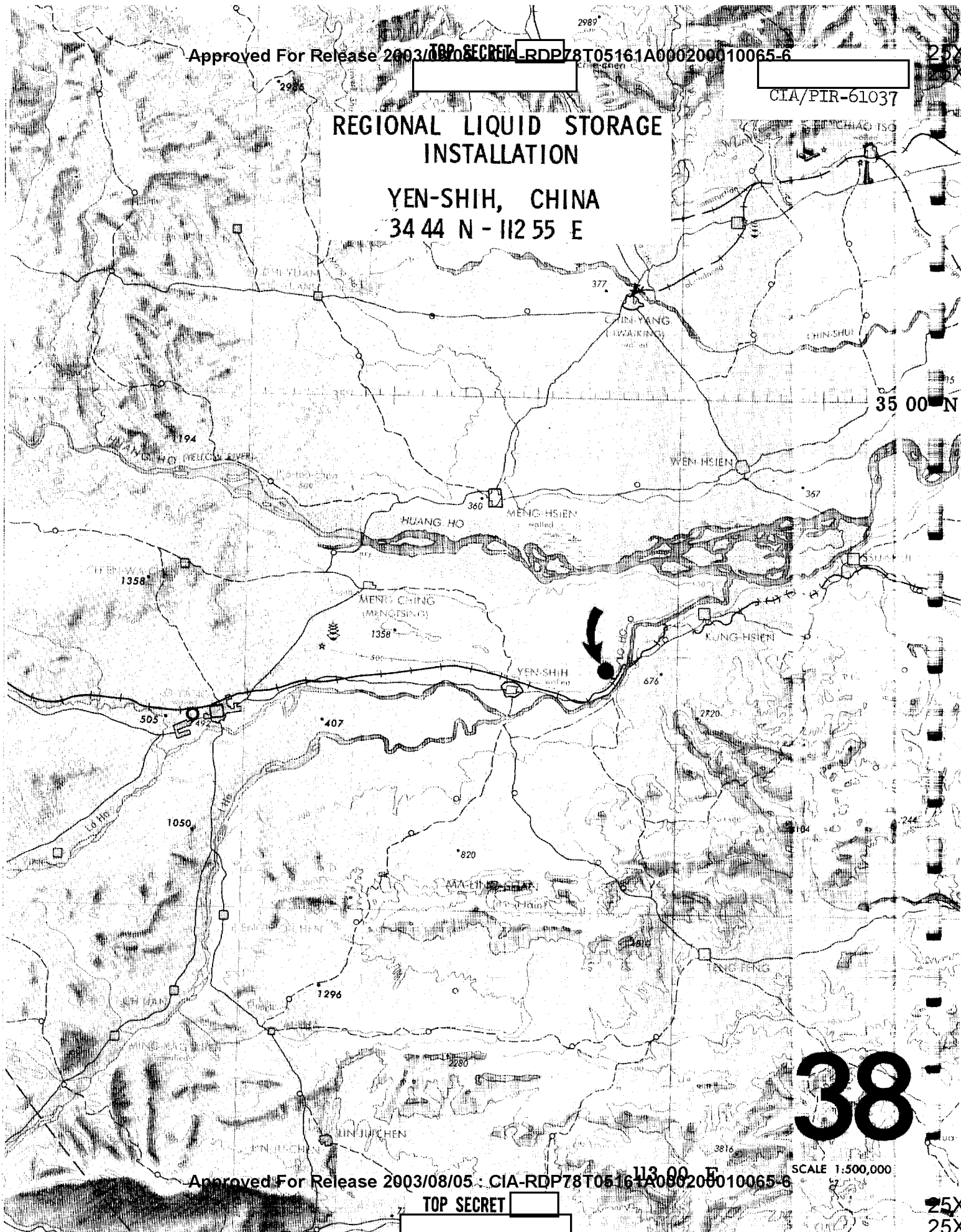


TOP SECRET

CIA/PIR-61037

REGIONAL LIQUID STORAGE INSTALLATION

YEN-SHIH, CHINA
34 44 N - 112 55 E



35 00 N

38

TOP SECRET

SCALE 1:500,000

25X1
25X1

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

REGIONAL LIQUID STORAGE
INSTALLATION

YEN-SHIH, CHINA

34 44 N - 112 55 E

SUPPORT AREA

RAILHEAD

20 SEMI-BURIED TANKS

39

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

TOP SECRET

2003/08/05 TOP SECRET A-RDP78T05161A000200010065-6

25X1
25X1

CIA/PIR-61037

REGIONAL LIQUID STORAGE INSTALLATION

YUNG-FU, - CHINA
24 49 N - 110 00 E

25 00 N

40

110 00 E
Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

TOP SECRET

25X1

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

REGIONAL LIQUID STORAGE
INSTALLATION

YUNG-FU, CHINA
24 49 N - 110 00 E

10 SEMI-BURIED TANKS

RAILHEAD

SUPPORT AREA

100 METERS

25X1

25X1

25X1

Approved For Release 2003/08/05 : CIA-RDP78T05161A000200010065-6

TOP SECRET

TOP SECRET